SPECIFICATION

TITLE OF THE INVENTION

PHARMACEUTICAL COMPOSITIONS WITH WOUND HEALING OR ANTI-COMPLEMENTARY ACTIVITY COMPRISING A DEXTRAN DERIVATIVE

GK 2/8/06. This application is a Continuation of PCT/FR00/01658 filed June 15, 2000.

BACKGROUND OF THE INVENTION

The present invention relates to pharmaceutical compositions which have a healing or anticomplementary action and which comprise at least one dextran derivative.

Different dextrans which are substituted by side chains carrying carboxylate and sulfonate groups have been described. In particular, dextran derivatives comprising, respectively, 83% or 110% of units substituted by carboxymethyl groups, 23% or 2.6% of units substituted by carboxymethylbenzylamide groups, and 13% or 36.5% of units substituted by sulfonate groups (sulfonate groups carried by the carboxymethylbenzylamide units), namely RGTA9 and RGTA11, respectively, have been described for their action, in vivo in rats, on skin repair (A. Meddahi *et al.*, Path. Res. Pract., 1994, 190, 923-928; A Meddahi *et al.*, Diabetes & Metabolism (Paris), 1996, 22, 274-278) and on muscle regeneration (A. Aamiri *et al.*, Neuroscience Letters, 1995, 201, 243-246; J. Gautron *et al.*, C. R. Acad. Sci. Paris, Life sciences, Cell biology, 1995, 318, 671-6; A. Aamiri *et al.*, C. R. Acad. Sci. Paris, Life sciences, Neurosciences, 1995, 318, 1037-43).

As far as skin repair is concerned, A. Meddahi *et al.* (*ibid*) propose making good skin wounds using collagen pieces which have been soaked with a solution of RGTA9 or RGTA11; an improvement in the speed and the quality of skin regeneration is observed under these conditions. This improvement could be explained on the basis that the RGTA9 or RGTA11 trap, protect and release the endogenous growth factors which are naturally secreted during skin healing. Protection of the growth factors would make it possible to avoid their being degraded by the natural proteases, thereby preserving their ability to stimulate tissue repair.

In the field of muscle regeneration, A. Aamiri *et al.* and J. Gautron *et al.* (*ibid*) propose injecting rats, whose rapid muscles (EDL: *Extensor Digitorium Longus*) and/or slow muscles (*soleus*) have been crushed, with a solution of RGTA11. They observe an improvement in the regeneration of the muscles following this injection: the treated muscles exhibit a larger number of muscle fibers and more rapid reinnervation.